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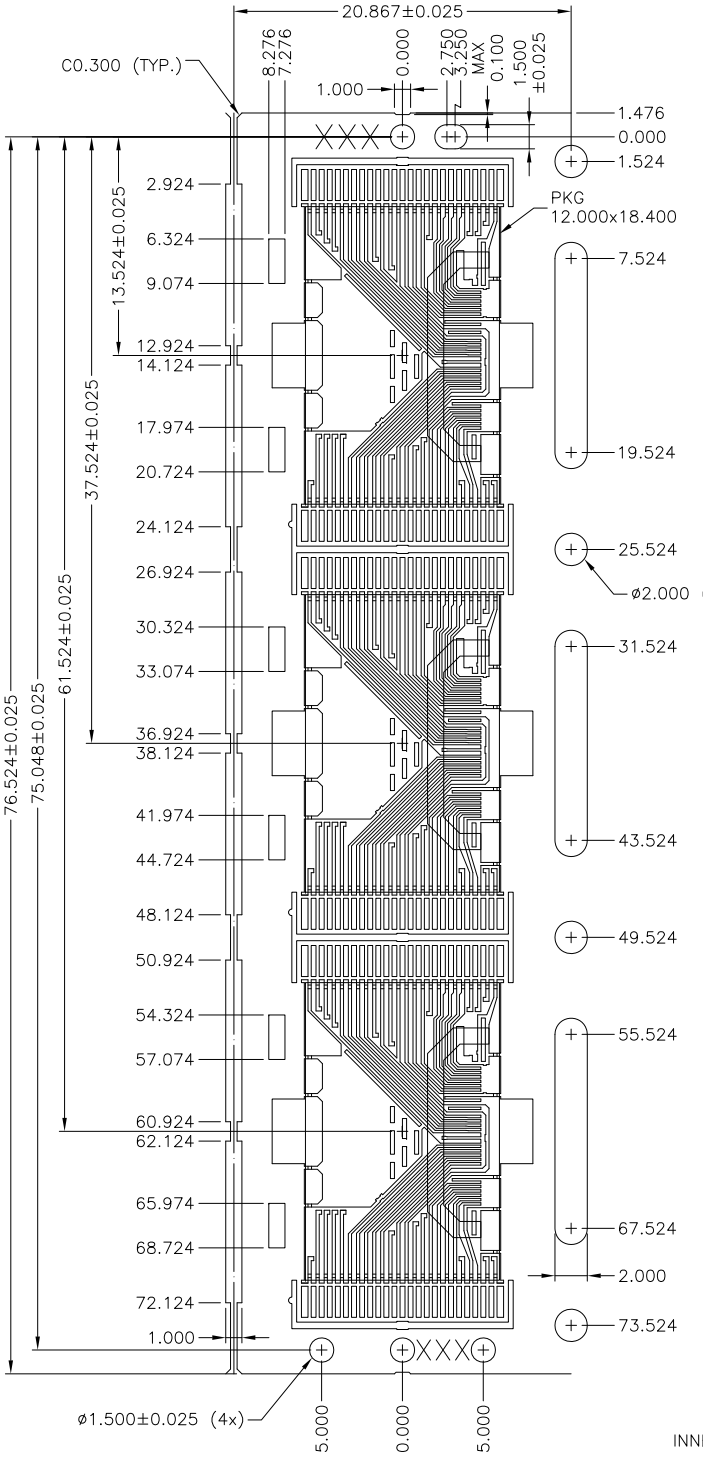
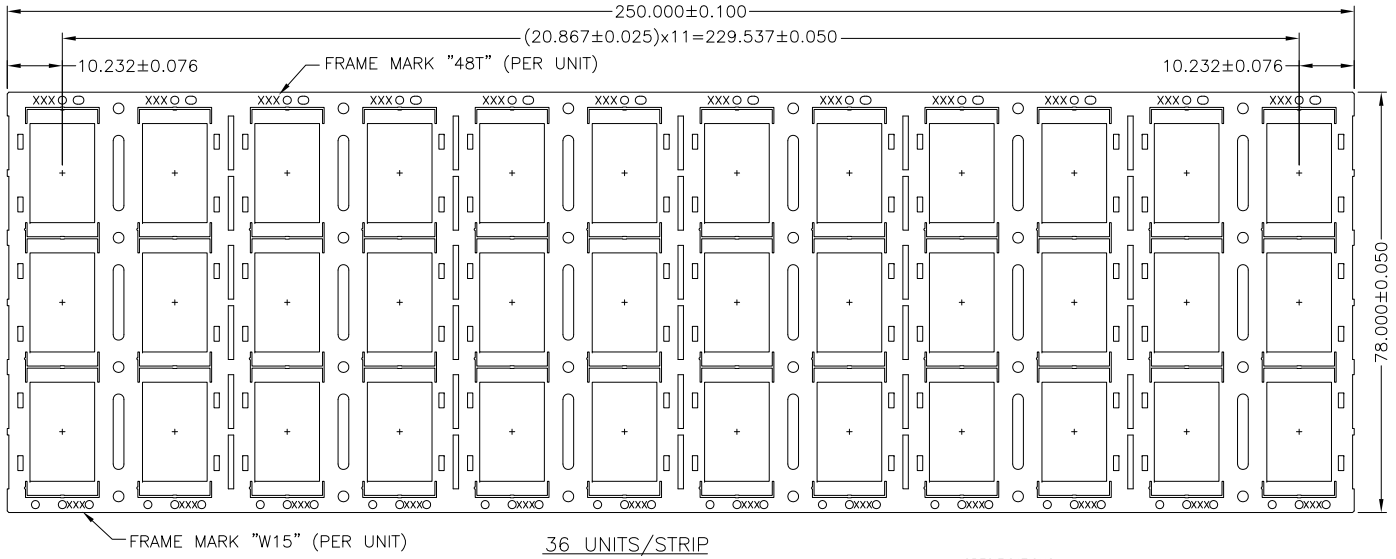
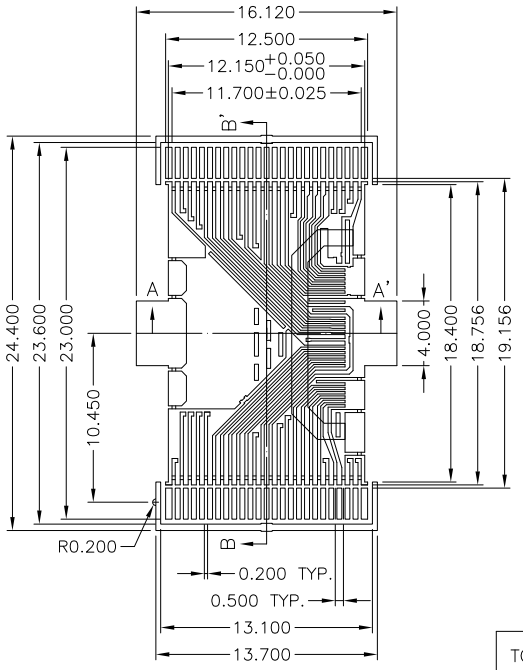
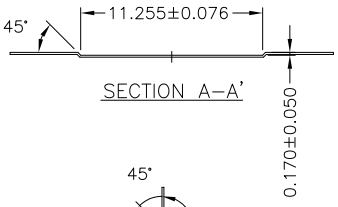
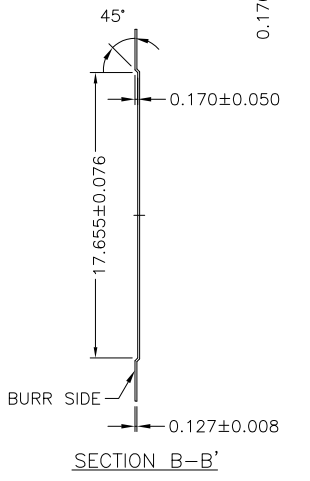




36 UNITS/STRIP







SECTION B–B'

SPECIFICATIONS :

1	ALL DIMENSIONS IN MM				
2	STANDARD TOLERANCE				±0.050
3	STANDARD RADIUS			MAX	0.127
4	BURR				
	A	INSIDE OF PACKAGE AREA	VERTICAL	MAX	0.025
			HORIZONTAL	MAX	0.025
	B	OTHER AREA	VERTICAL	MAX	0.025
			HORIZONTAL	MAX	0.050
5	CUTTING BURR			MAX	0.050
6	MISMATCH			MAX	0.050
7	FLAT AREA OF LEADTIP AFTER COINED			MIN	0.110
8	LEAD SPACING AFTER COINED			MIN	0.060
9	LEAD POSITION				±0.050
10	LEAD TWIST			MAX	2.5°
11	LEAD TILT			MAX	2.5°
12	LEADTIP COPLANARITY (HIGHEST–LOWEST)			MAX	0.152
13	LEADTIP PLANARITY FROM DAMBAR				−0.170±0.076
14	CROSSBOW			MAX	0.152/STRIP WIDTH
15	COIL SET			MAX	0.635/STRIP LENGTH
16	FRAME TWIST			MAX	0.254/STRIP LENGTH
17	CAMBER			MAX	0.100/STRIP LENGTH
18	PAD FLATNESS			MAX	0.015
19	PAD TILT AFTER DEPRESSED			MAX	0.100 EACH X–Y
20	PAD SHIFT AFTER DEPRESSED				±0.050
21	PAD PLANARITY FROM DAMBAR				−0.170±0.050
22	MATERIAL				ALLOY 42
	A	THICKNESS			0.127±0.008
	B	HARDNESS			1/2H (HV180~220)
23	COINING				
	A	POSITION TOLERANCE			±0.100
	B	DEPTH		MAX	0.025
24	AG PLATING				RING
	A	THICKNESS		MIN	2.54um [100 u"]
				MAX	8.89um [350 u"]
	B	BRIGHTNESS			SEMI BRIGHT (0.4~1.0)
	C	AREA	X AXIS		AS DRAWING
			Y AXIS		AS DRAWING
	D	SILVER LEAKAGE CAN'T EXCEED PKG LINE.			
25	TAPE				ON LEADFRAME BACKSIDE
	A	TAPE MATERIAL			R970
	B	TAPE CONSTITUTION			70 (20/50) um
	C	TAPE LOCATION (ON BOTTOM SIDE)			±0.150
	D	BUBBLE OF TAPE <1/3 TAPE WIDTH			
	E	TAPE DEWETTING AREA OF INDIVIDUAL LEAD : 20% MAX			
26	STAMPING DIRECTION				BURR SIDE UP

INNER LEADS SYMMETRY

REV.	ORG DIM → NEW DIM	DATE

TOLERANCE	UNIT	mm	SCALE	3:1	PROJ	南茂科技股份有限公司 ChipMOS TECHNOLOGIES INC.
DIMENSION 0.000±0.050	MATERIAL		A42		Q'TY	TITLE 48L TSOP-I (12x20mm) (358x315) L/F DRAWING (A42, STAMPED)
ANGLE 0°±0.5°	DESIGNED	H.W. CHEN	CHECKED	Y.T. PAN		DWG NO L048T3531S1A
	REVIEWED	H.P. LIU	APPROVED	VINCENT TU	DATE 03/21/2014	CUSTOMER / VER. 1 / PAGE 1/3

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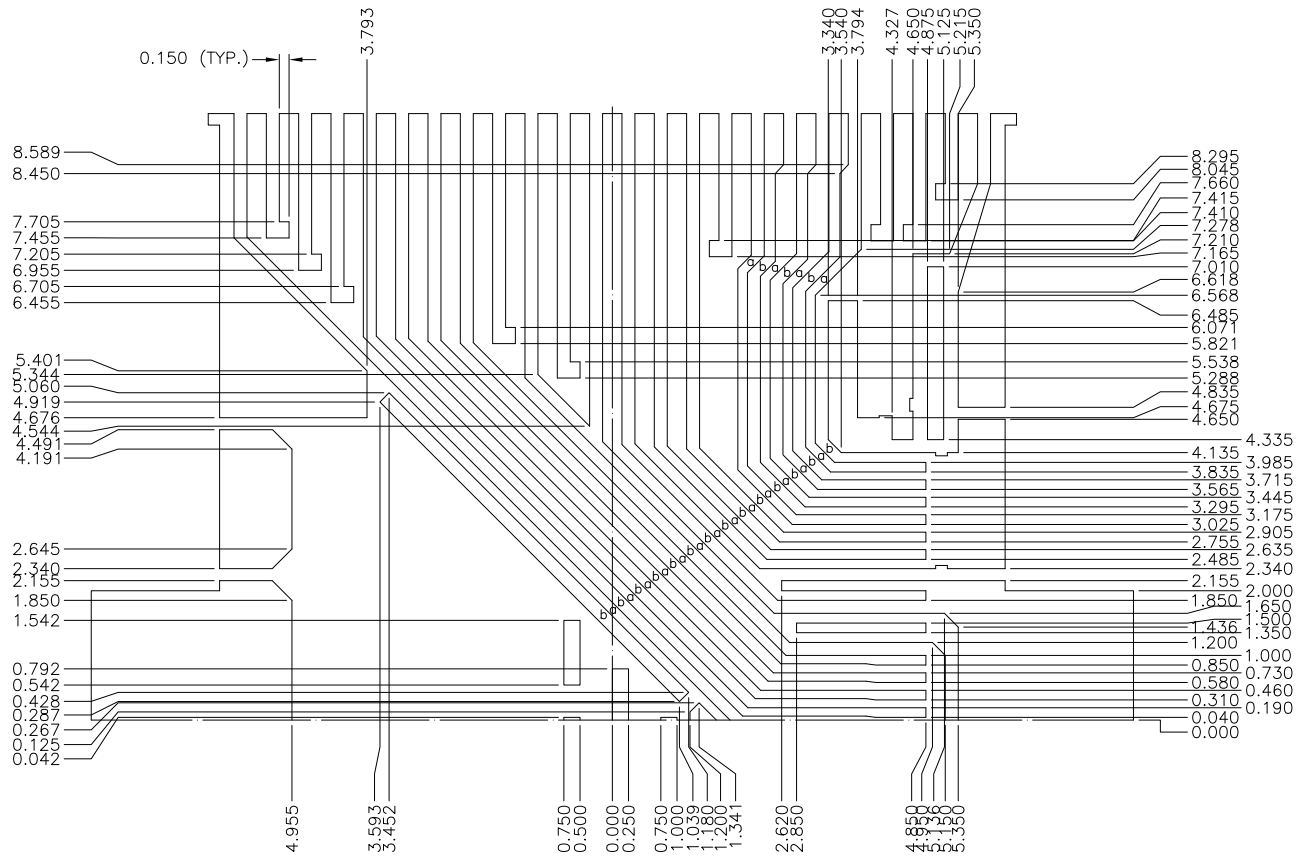

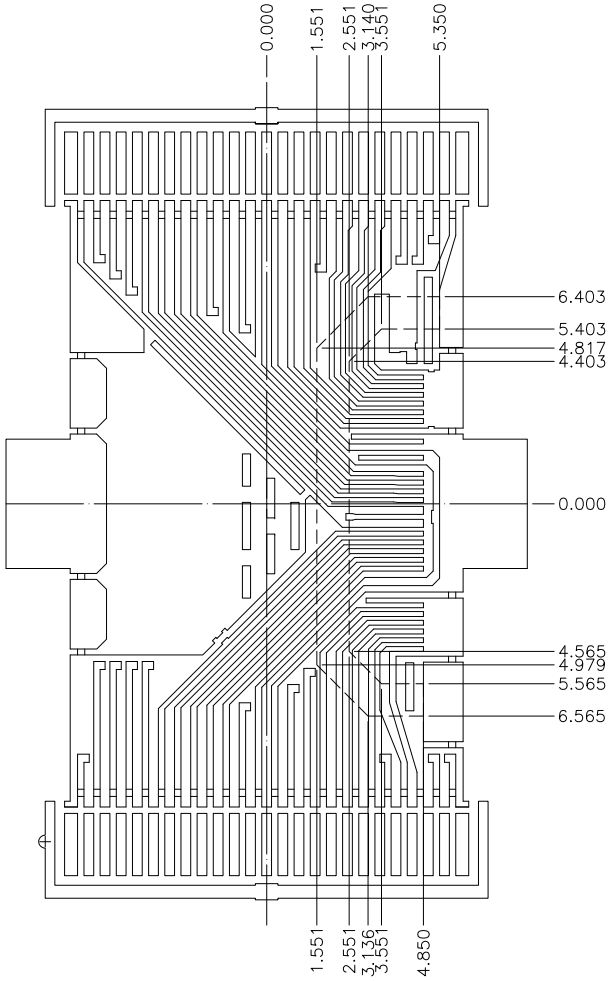

TAPING AREA

a = 0.150
b = 0.180

REV.	ORG DIM → NEW DIM	DATE

TOLERANCE	UNIT	mm	SCALE	12:1	PROJ	南茂科技股份有限公司 ChipMOS TECHNOLOGIES INC.
DIMENSION 0.000±0.050	MATERIAL		A42	Q'TY		TITLE 48L TSOP-I (12x20mm) (358x315) L/F DRAWING (A42, STAMPED)
	DESIGNED	H.W. CHEN	CHECKED	Y.T. PAN		DWG NO L048T3531S1A
ANGLE 0°±0.5°	REVIEWED	H.P. LIU	APPROVED	VINCENT TU	DATE 03/21/2014	CUSTOMER / VER. 1 / PAGE 2/3

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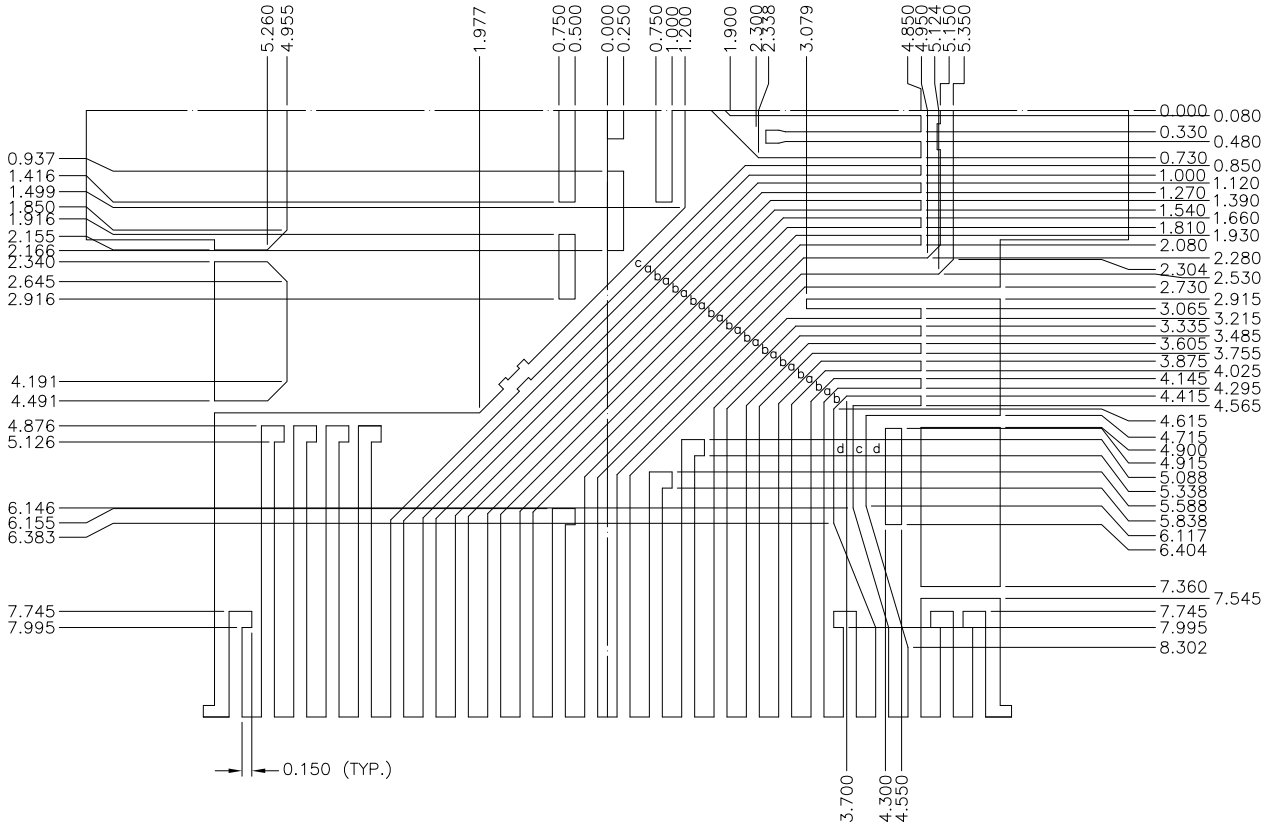
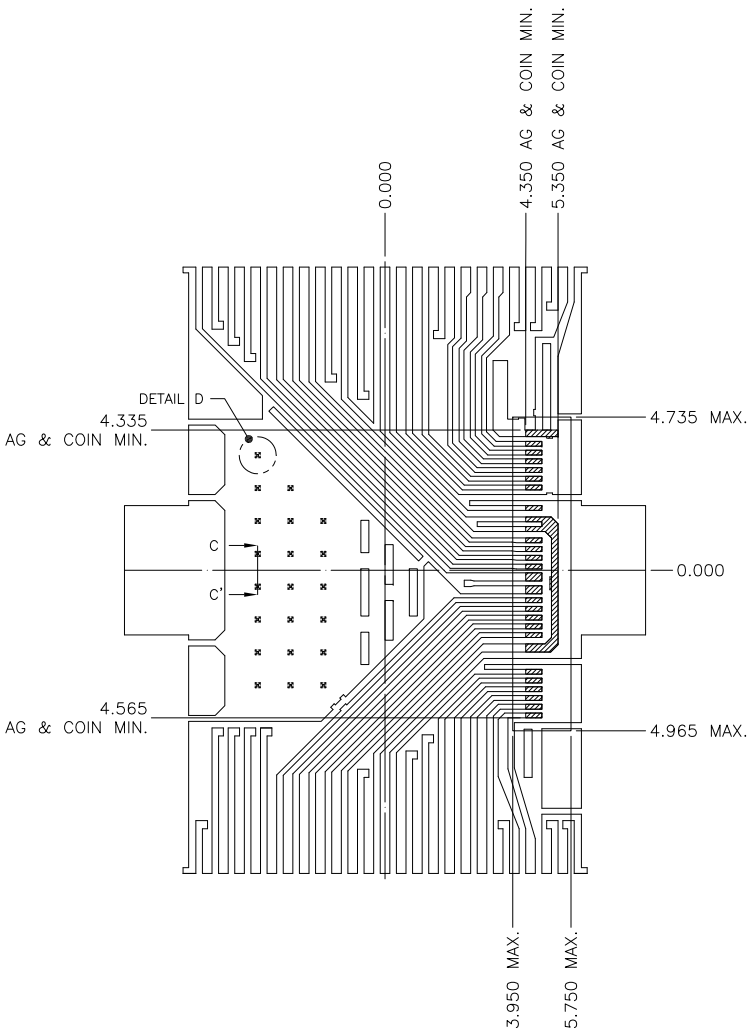
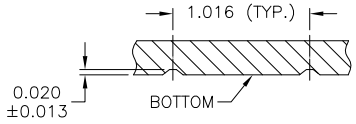


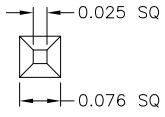


PLATING & BACKSIDE DIMPLE

▨ MIN. PLATING & COIN AREA



SECTION C–C'



DETAIL "D"

a = 0.150
b = 0.180
c = 0.200
d = 0.300

REV.	ORG DIM → NEW DIM	DATE

TOLERANCE	UNIT	mm	SCALE	12:1	PROJ	南茂科技股份有限公司 ChipMOS TECHNOLOGIES INC.
DIMENSION 0.000±0.050	MATERIAL		A42	Q'TY		TITLE 48L TSOP-I (12x20mm) (358x315) L/F DRAWING (A42, STAMPED)
	DESIGNED	H.W. CHEN	CHECKED	Y.T. PAN		DWG NO L048T3531S1A
ANGLE 0°±0.5°	REVIEWED	H.P. LIU	APPROVED	VINCENT TU	DATE 03/21/2014	CUSTOMER / VER. 1 / PAGE 3/3